



PROJECT REPORT
BACKGROUND AND FOREGROUND
SEGMENTATION USING OTSU AND MANUAL
THRESHOLDING

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APPROVAL AND RATIFICATION PAGE

BACKGROUND AND FOREGROUND SEGMENTATION USING OTSU AND MANUAL THRESHOLDING

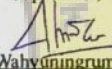
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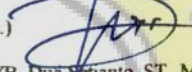
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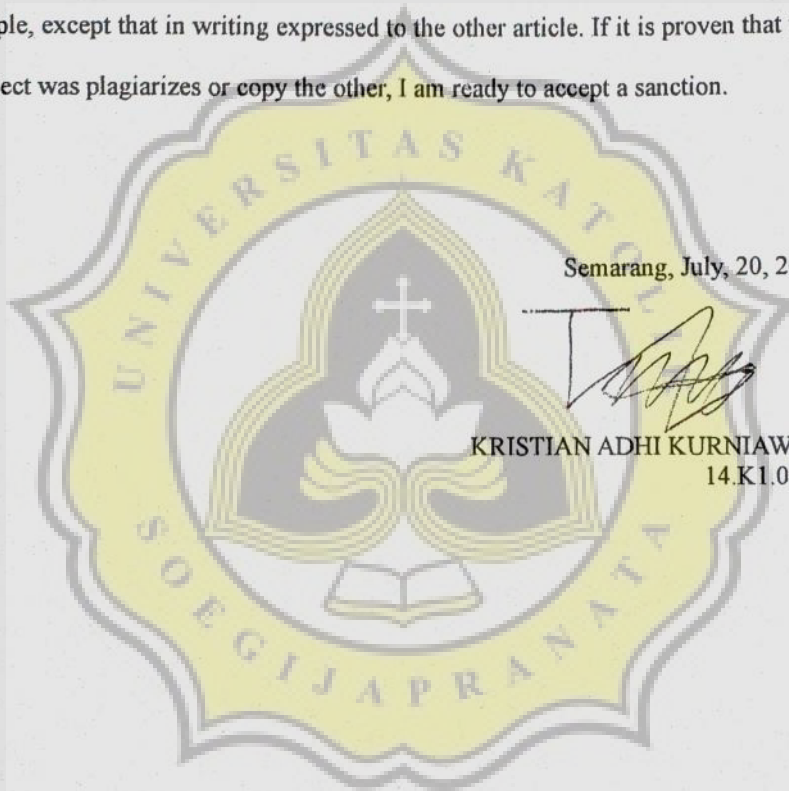
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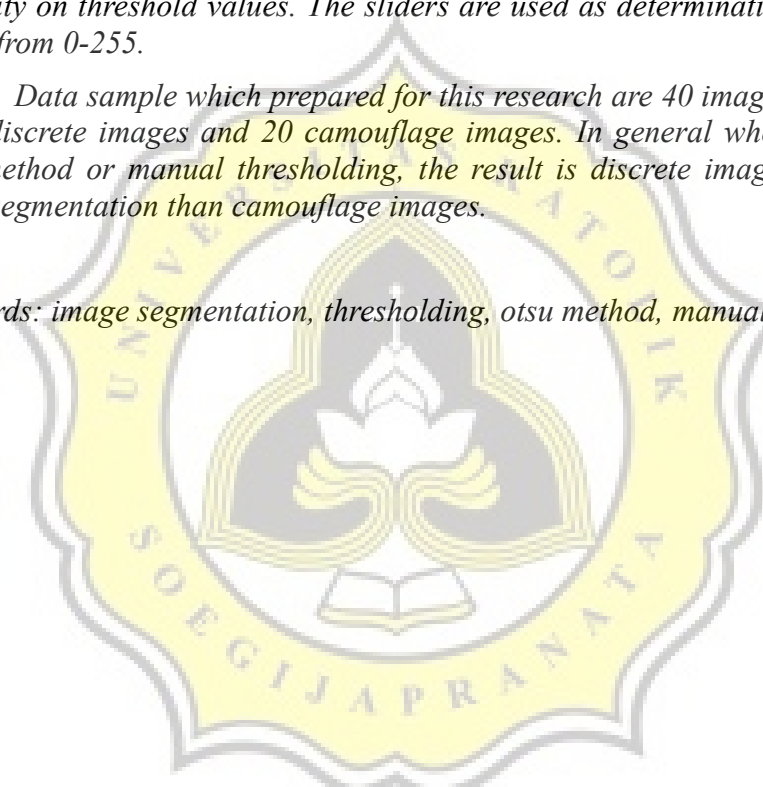
ABSTRACT

There are many image segmentation methods, one of them is thresholding. The problem is object and background segmentation on camouflage images is usually more difficult than discrete images.

The solution in this project is result comparison of Otsu method which applied in two image type: discrete and camouflage. After histogram calculation of original image in each color channel, there is statistic calculation of Otsu method. The final step is searching for maximum value of between class variance, then it used as optimal threshold. While manual thresholding also provided to add flexibility on threshold values. The sliders are used as determination of threshold values from 0-255.

Data sample which prepared for this research are 40 images that consists of 20 discrete images and 20 camouflage images. In general when tested using Otsu method or manual thresholding, the result is discrete images usually had better segmentation than camouflage images.

Keywords: image segmentation, thresholding, otsu method, manual thresholding



PREFACE

There are 6 chapters in this project. Chapter 1 explains about background of segmentation problem in camouflage images, then scope and objective of this project. Chapter 2 contains literature study of five journals which are discussed and summarized as references of this project. Chapter 3 explains about research methodology which is used on this project, there are four steps to do this research. Chapter 4 explains about analysis (narration) and design (program's flowchart) of this project. Chapter 5 contains important source code with its explanation and three part of program test using Otsu method and manual thresholding. Chapter 6 is conclusion of this project and suggestion for the further research.

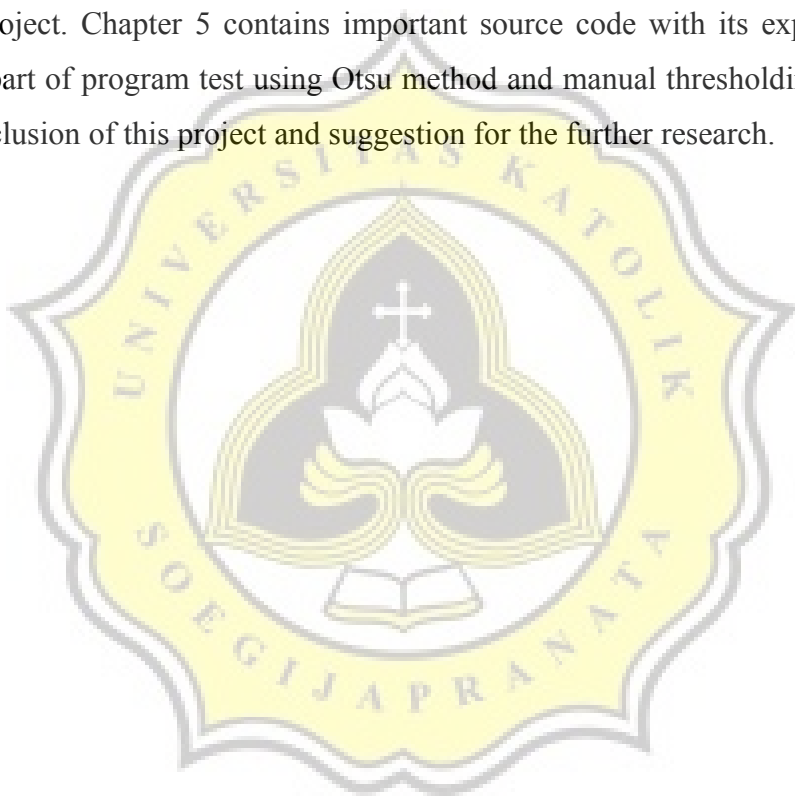


TABLE OF CONTENTS

Cover.....	i
APPROVAL AND RATIFICATION PAGE.....	ii
STATEMENT OF ORIGINALITY.....	iii
ABSTRACT.....	iv
PREFACE.....	v
TABLE OF CONTENTS.....	vi
ILLUSTRATION INDEX.....	vii
INDEX OF TABLES.....	ix
CHAPTER 1 INTRODUCTION.....	1
1.1 Background.....	1
1.2 Scope.....	1
1.3 Objective.....	2
CHAPTER 2 LITERATURE STUDY.....	3
CHAPTER 3 RESEARCH METHODOLOGY.....	5
CHAPTER 4 ANALYSIS AND DESIGN.....	6
4.1 Analysis.....	6
4.2 Design.....	7
4.2.1. FLOWCHART OF PROGRAM.....	7
4.2.2. OTSU METHOD FLOWCHART.....	9
4.2.3. MANUAL THRESHOLDING FLOWCHART.....	11
CHAPTER 5 IMPLEMENTATION AND TESTING.....	12
5.1 Implementation.....	12
5.1.1. OTSU METHOD.....	12
5.1.2. MANUAL THRESHOLDING.....	15
5.2 Testing.....	17
5.2.1. OTSU METHOD.....	17
5.2.2. MANUAL THRESHOLDING.....	21
CHAPTER 6 CONCLUSION.....	36
6.1 Conclusion.....	36
6.2 Further Research.....	36
REFERENCES.....	37
APPENDIX.....	38

ILLUSTRATION INDEX

Illustration 4.1: Flowchart of Program Steps.....	7
Illustration 4.2: Otsu Flowchart.....	9
Illustration 4.3: Manual thresholding Flowchart.....	11
Illustration 5.1: Discrete image 1 - Otsu.....	17
Illustration 5.2: Camouflage image 1 - Otsu.....	17
Illustration 5.3: Histogram of discrete image 1.....	19
Illustration 5.4: Histogram of camouflage image 1.....	19
Illustration 6.1: Discrete image 2 - Otsu.....	41
Illustration 6.2: Camouflage image 2 - Otsu.....	41
Illustration 6.3: Histogram of discrete image 2.....	42
Illustration 6.4: Histogram of camouflage image 2.....	42
Illustration 6.5: Discrete image 3 - Otsu.....	43
Illustration 6.6: Camouflage image 3 - Otsu.....	43
Illustration 6.7: Histogram of discrete image 3.....	44
Illustration 6.8: Histogram of camouflage image 3.....	44
Illustration 6.9: Discrete image 4 - Otsu.....	45
Illustration 6.10: Camouflage image 4 - Otsu.....	45
Illustration 6.11: Histogram of discrete image 4.....	46
Illustration 6.12: Histogram of camouflage image 4.....	46
Illustration 6.13: Discrete image 5 - Otsu.....	47
Illustration 6.14: Camouflage image 5 - Otsu.....	47
Illustration 6.15: Histogram of discrete image 5.....	48
Illustration 6.16: Histogram of camouflage image 5.....	48
Illustration 6.17: Discrete image 6 - Otsu.....	49
Illustration 6.18: Camouflage image 6 - Otsu.....	49
Illustration 6.19: Histogram of discrete image 6.....	50
Illustration 6.20: Histogram of camouflage image 6.....	50
Illustration 6.21: Discrete image 7 - Otsu.....	51
Illustration 6.22: Camouflage image 7 - Otsu.....	51
Illustration 6.23: Histogram of discrete image 7.....	52
Illustration 6.24: Histogram of camouflage image 7.....	52
Illustration 6.25: Discrete image 8 - Otsu.....	53
Illustration 6.26: Camouflage image 8 - Otsu.....	53
Illustration 6.27: Histogram of discrete image 8.....	54
Illustration 6.28: Histogram of camouflage image 8.....	54
Illustration 6.29: Discrete image 9 - Otsu.....	55
Illustration 6.30: Camouflage image 9 - Otsu.....	55
Illustration 6.31: Histogram of discrete image 9.....	56
Illustration 6.32: Histogram of camouflage image 9.....	56
Illustration 6.33: Discrete image 10 - Otsu.....	57
Illustration 6.34: Camouflage image 10 - Otsu.....	57
Illustration 6.35: Histogram of discrete image 10.....	58

Illustration 6.36: Histogram of camouflage image 10.....	58
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INDEX OF TABLES

Table 5.1: Table of highest peaks zone.....	20
Table 5.2 : Table of optimal threshold zone.....	20
Table 5.3: Camouflage image 2 – Manual.....	21
Table 5.4: Table of Manual Threshold (Camouflage image 1-10).....	22
Table 5.5: Table of Manual Threshold (Camouflage image 11-20).....	23
Table 5.6: Result Table of Otsu method.....	25
Table 5.7: Table of Histogram.....	26
Table 5.8: Table of Maximum Frequency - Otsu.....	27
Table 5.9: Table of Optimal Threshold - Otsu.....	28
Table 5.10: Comparison Table of Maximum Frequency.....	28
Table 5.11: Comparison Table of Optimal Threshold.....	29
Table 5.12: Result Table of Manual thresholding.....	30
Table 5.13: T able of Manual Threshold (Discrete image 1-10).....	31
Table 5.14: Table of Manual Threshold (Discrete image 11-20).....	32
Table 5.15: Table of Manual Threshold (Camouflage image 1-10).....	33
Table 5.16: Table of Manual Threshold (Camouflage image 11-20).....	34
Table 6.1: Camouflage image 1 - Manual.....	59
Table 6.2: Camouflage image 2 - Manual.....	60
Table 6.3: Camouflage image 3 - Manual.....	61
Table 6.4: Camouflage image 4 – Manual.....	62
Table 6.5: Camouflage image 5 - Manual.....	63
Table 6.6: Camouflage image 6 - Manual.....	64
Table 6.7: Camouflage image 7 - Manual.....	65
Table 6.8: Camouflage image 8 - Manual.....	66
Table 6.9: Camouflage image 9 - Manual.....	67
Table 6.10: Camouflage image 10 - Manual.....	68
Table 6.11: Camouflage image 11 - Manual.....	69
Table 6.12: Camouflage image 12 - Manual.....	70
Table 6.13: Camouflage image 13 - Manual.....	71
Table 6.14: Camouflage image 14 - Manual.....	72
Table 6.15: Camouflage image 15 - Manual.....	73
Table 6.16: Camouflage image 16 - Manual.....	74
Table 6.17: Camouflage image 17 - Manual.....	75
Table 6.18: Camouflage image 18 - Manual.....	76
Table 6.19: Camouflage image 19 - Manual.....	77
Table 6.20: Camouflage image 20 - Manual.....	78
Table 6.21: Result Table of Otsu method – Discrete images.....	79
Table 6.22: Result Table of Otsu method – Camouflage images.....	84
Table 6.23: Table of Histogram.....	89
Table 6.24: Result Table of Manual Thresholding - Discrete Images.....	98
Table 6.25: Result Table of Manual Thresholding - Camouflage Images.....	101